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~~B. Rush~~
To Wm Fuller M.D. &c
B: Rush

To whom shall I present this first
Effort in Rhyme but to you Sir who
When I was so much of an ignorant
You first taught me to think for myself
& it was by your Example I was delivered
from the ^{the} Tyranny of great names in Rhyme.

~~I am not worthy to be compared~~
James B. Rush B. Rush B. Rush

J. Rush B. Rush B. Rush

B. Rush B. B. Rush

B. Rush B. Rush J. J.

B. Rush B. Rush J.

Quæritur - the Historia morbi - Diagnosis - Causes
Prognosis - and Methodus Medendi of the putrid
Bilious Fever?

M^r. President!

It is no uncommon Thing in Disputa-
tions of this nature to spend some time in en-
-quiring into the Opinions of ancient, and
~~modern~~ Authors. But as this would consume
a great deal of time unnecessarily we shall only
observe that it appears to have been ² Lyncus
Biliosa of Galen - the Lyncus putrida of
Rivinus, and the Febris maligna vel petechialis
of Junger. Some Authors have distinguished
it by particular names according to the symptoms
it assumes. Thus when it is attended wth Delirium

since the Improvements of later Ages have
discovered their supposed Causes to be entirely
without Foundation. Besides Climates and
Constitution; or subject to such great vicissitudes
from a thousand Accidents that Diseases
^{ch} w: are always so much influenced by both
these circumstances put an difficult Expression
in ^{almost} every Age & Country. I would not pretend
today the Disease w: is designed to be a subject
of the foll: paper was entirely unknown to
the Ancients. Some of them have dropped a
few Hints ^{ch} w: give us Reason to suppose they
were acquainted w: it, but what they have said tends
so little to explain the Cause, or to point out
a rational Method of curing the Disease that

we find it distinguished by Hippocrates by the name
of the Dysenteria Strabiliaris; and when attended
w: great Anxiety & Dejection of the Spirits in
the Beginning of the Disease ^{it} is very often the
Case it is called by Aesculap the Febris Synocha-
thica.

Among modern Authors this Disease has like-
wise received a variety of names. Thus we find
it called the Bilious Fever [the putrid Fever -
the Bilious Remitting Fever] and the yellow Fever
all of which are One and the same Disease, and
depend upon the same Cause. Their only Difference
consists in their Degree and not in their kind.

It would be easy to prove this Assertion
from a variety of Authorities: See a Quotation
from Dr. Boerhaave in Dr. Pringle's Diseases of the
Army page 225 in w^h he considers them as the
same Disease only differing in the greater or

we sh^d. receive but little assistance from
compiling these Sentiments upon this subject.

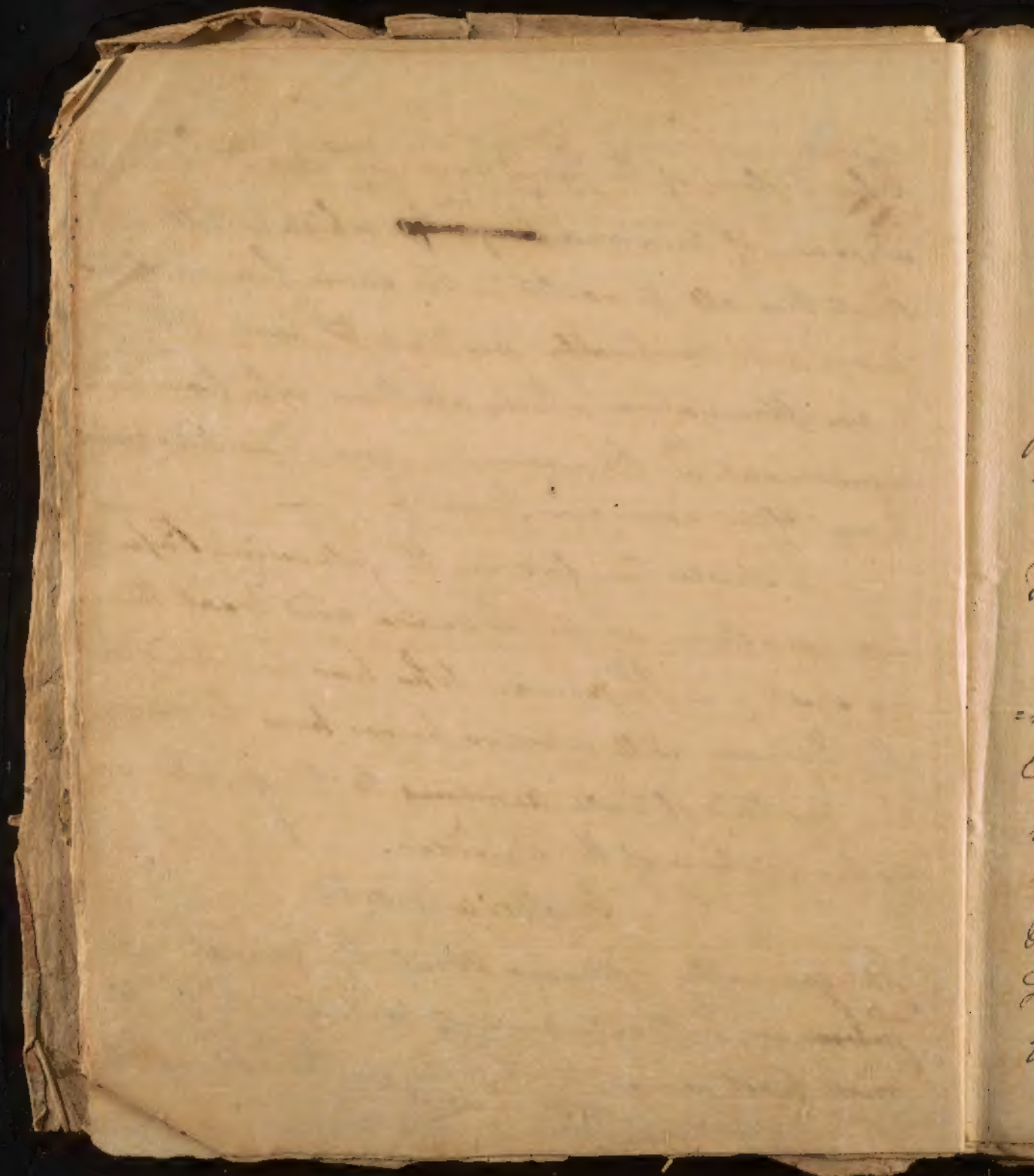
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less violence of the symptoms. [See also Dr. Cleghorn's
Diseases of Minors ~~in~~ ⁱⁿ which he tells us
that they all prevailed in the same season of the
Year, and mutually propagated each Other
- an Observation which all those who have been
conversant wth Diseases in warm Climates must
have often seen confirmed]. —

I shall therefore in the following Paper
consider them as One Disease and treat them
as such. a Physician who has been used to
the Disease will always know how to vary
his Method of Cure according to the greater or
less violence of the Disorder.

Historia Morbi.

It generally appears about the middle of
Summer, or Beginning of Autumn, & for the
most part ceases to rage upon the Approach



of cold weather. As soon as a Patient is seized
 w: this Disease he immediately feels a Prostration
 of Strength - great Anxiety - intense Pain in ^e
 Head - Coldness and Shivering. These Symptoms
 are quickly succeeded by great Heat - a burning
 Sensation about the Praecordia - a dry reddish
 - florid or black Tongue - a hoarse shrill voice -
 immense Thirst especially for cold subacid ^{the}
 Drinks. The Lips and Teeth are covered w: a black
 kind of Fodex. The Urine has various Appea-
 rances - sometimes red - black, & in many
 Cases bloody. The Respiration is difficult, and
 laborious! The Pulse in the Beginning is full &
 tense, but after a while becomes small - weak
 & irregular. The Patient complains of a bitter
 Taste in his Mouth - tosses himself in his Bed
 from side to side without being able to rest long in
 any Posture. He feels a violent fixed pain about



The Praecordia w: is always increased upon being pressed.
 - the whole Hypochondriac Region is swelled & hard. The
 Patient nauseates Food, & vomits up every ^{thing} he takes
 together w: large quantities of Green, & sometimes
 blackish bile resembling Coffee grounds. The Eyes
 are inflamed - of a yellowish Colour, and often
 suffused w: ^{the} blood. The Bowels are sometimes
 bound, and sometimes open. The Face & whole
 Skin are tinged of a yellow Colour which in the
 Progress of the Disease is changed to a livid grey.
 - Black spots begin to make their Appearance
 About the Neck and Breast. The Blood is now
 poured forth in a thin dissolved state from the
 Nose, ~~and~~ Mouth, and urinary Passages, & is some-
 times ejected in vomiting mixed w: black bile.
 - The Hands & Feet now begin to grow cold. a Deli-
 rium comes On, & sometimes a Syncope. The
 Limbs begin to tremble - the Patient now feels,

14, the Maligⁿ Degeneration
the Tissue in this Disease is often affected.
That disposes it to Putrefⁿ - but if
Discharge here is widely diff^r from
of Malignant Secretion.



2nd From the common Inflammatory Fever by its prevailing most in summer & in warm climates - by the Pulse which for the most part sinks on the 2nd or 3rd day - by the occasional causes which excite it, and lastly by the seat of pain which the Patient feels in the Part of his stomach.

3rd From the nervous Fever - by the greater quickness of the Pulse - by the Restlessness of the patient - by the pain, not being confined to the Head alone - and by the Patient's having no Disposition to sleep.

4th From the miliary Fever - by the Eruptions happening in the Core, and not in the Beginning of the Disease - by their not proving critical - & by the different Appearance of the Eruptions: in the miliary Fever they consist of little Tumors, whereas in the putrid Fever they have the Appearance of black Spots, and do not rise above the skin.

5th From the Hepatitis - by the bilious vomiting.

(a) See Pingle page 82. & 83

(b) Ibid 83. Nothing dissi^m more terrib^l?
in Lapland nor in Cont. Dis. (old history p. 103)

(c) This so much dispo^s persons to be
affected wth contagious diseases of all kinds.
That the Reason why the Plague and
Other pestilential Disorders prevail so
much less now than they did 100 years ago
has justly been attrib^d to the greater use made
of Veg^{ts} in Diet & forment.

(d) Hill? p. 196 a Case from Spirit Liqueurs also
generally exposed p. 146 here Factors who
drink so much are most subject to it called
here by the French "La Fièvre matelotte"

by the Pulse's becoming soft on the 2nd or 3rd day - and
by the greater anxiety about the Praecordia.
6th Jaundice - 6th Cholera morbus.

Occasional Causes &

Predisposing.

The most common Occasional Causes of this Disease
are 1st Heat joined w. ^{the} moisture 2nd very calm weather
3rd the intense Heat of the sun 4th great quantities of
Animal Food 5th Intemperance of all kinds 6th profuse
Evacuations 7th violent Exercise of the body or mind
8th all stimulating high seasoned Diet 9th putrid
Inhalations & 10th Contagion from a Person labour-
ing under the Disease. Perhaps none of these
occasional Causes are sufficient to produce ^a Disease
except when they act in Conjunction w. ^{the} the two last.

Proximate Cause

It were to be wished we could assign this as
early as we have done the Occasional Causes.
Nature who seems to have delighted in simplicity



in her other works has wrapped herself in a veil in y:
 animal Economy, and ~~has~~ concealed her more se-
 cret Operations from our view. We no sooner
 begin to investigate them, than we are at once
 lost in a circle of Causes & Effects. These Difficulties
 occur w:th peculiar Force in our Inquiries into
 the proximate Cause of this Disease.

It would employ too much time here to re-
 count all the Opinions that have subsisted
 among Physicians upon this subject. I shall only
~~point~~^{point} at one or two of them.

For a long time this Disease was supposed to
 have its seat in the Bile upon the Au:th of a re-
 ceived Opinion, that it was more disposed to
 Putrefaction than any of the other Humors
 of the Body. But we have direct Experiments
 which prove the contrary of this Doctrine to
 be true. see Dr Pringle's Appendix App:ⁿ II.

(21) I am so far from thinking of it
depend upon a morbid humour of
the Bile that I rather imagine its ^{hu-}mi-
-mour is considerably diminished. all
the secretions we know becomes acid
by stagnation from this more ~~than~~ fluid
parts being absorbed & carried into the
Circulation. ~~now nothing is~~ ^{is} now as if
Bile is discharged in ^{such} large quantities as
soon as it is secreted, it has not time to
acquire even $\frac{1}{4}$ Degree of acrimony ^{as} is
natural to it. I know many Physicians
talk of Matter being thrown up to ^{and} ~~induced~~

Mr. Brides Essay Experiment 28: & D.^r Ramsays
 Inaugural Dissertation April 15th. Nor can we attribute
 - but the Disease to an increased Secretion of Bile
 any more than we can the small pox to the pro-
 -fuse Spitting, or the Hysteria to the immoderate
 Flow of Urine which generally take place in those
 Diseases. ("")

An Opinion of later Date, & now more universally
 received is that it is owing to a putrid Ferment
 introduced into the Blood which has the power of
 assimilating it to itself, and thus bringing on a gene-
 -ral Putrefaction. This notion was originally deri-
 -ved from Galen whose words are "Putredo est
 totius Corporis putrescentis in corruptam natu-
 -ram Mutatio" - The Chemists readily adopted
 this doctrine. They considered the Body in y^e same
 Light they did their Chemical vessels, & imagined
 "that the same Processes were carried on there by

as to corrode the Nerves & Glands, but
I am apt to doubt this. if repeated Efforts
of vomiting may render ^{inflammation} the heart so as to
bring on a great deal of pain. for my part I
have paid great Attention to this Disease &
have often tried by Patients in ^{very} early
stages of it, but in this Disease, ^{no} it
has yet been heard of as complained of
anything like that as ^{common} pain. Some Authors
speak of -

Means of Menstrua - Ferments - Registers &c which
they saw every day in their Operations, entirely
forgetting the Animation of the human System
which uniformly influences all the Operations w^{ch}
go forward in the Body in such a manner as to
render it difficult to illustrate any of its Functions
by Analogies borrowed from other Parts of Nature.

This Opinion altho supported so much by
Analogy will appear very improbable when we
consider

1. In all Cases of Assimilation by means of
Fermentation we see an entire Change of Properties
produced. - a total decomposition enoues, and
the new Product retains none of the Properties of the
former Mixt. but we see nothing of this kind to
take place in putrid Fevers. the Blood is only dis-
solved, or its component parts mixed, but no new
Change is induced in its Nature or Properties.

† Besides if the Disease was $\frac{2}{3}$ Consequence of Putref.
it sh^d be more while $\frac{2}{3}$ putrefⁿ was greatest, but instead
of this we find the most violent Symptoms in the begin^g
at ^{an} time these Dis. are inf^d as will be shown hereafter

(6) The Petechia there are no Marks of
Putrefaction since we often see them in Diseases
purely inf^d as well as putrid †

c) It sometimes lies — for 10 or 12 Days before
it excites the Disease & sometimes brings on
at once [see Lind &c] in these Cases surely no
Fermⁿ could have taken place. The patients men-
tioned by Lind were seized ^{at} the moment they
saw the Contagion. Dr. Pringle mentions several
Instances of Soldiers who were seized in a
~~casual Physical & Literary Spasms of Edinburgh~~
Manner equally sudden wth these men altho
he does not tell us they perceived any smell at
the time. But it is highly probable these Symptoms
^{could arise} from nothing else but of immediate ^{cut} off
of the Contagion on their Constitution ^{at} the
Diffusion in the time in which the Disease

affected may easily be accounted for by having
Recourse to the diff. Degrees of Sensib^l in
different Constitutions, for the Disease always
appears to be in a Ratio compounded of
the Sen^s of ~~the~~ or the Predisposition of the Patient &
the violence of the contagious Matter ^{it} affects
it.

(a) During the spreading of many contagious
Diseases we often see Physicians & Nurses who
are most exposed to them escape the Disease.

.w

(2)
 exposed to it. What can this be owing to? —
 perhaps we shall be able to show hereafter that
 it depends upon a ^{of} irritable nervous system
 on which the Contagion appears chiefly to act. Upon
 this Act: it may be that those occasional causes
 which induce an increased sensibility or irritability
 of the nervous system are the only causes w^h predis-
 -pose to this Disease. Nervous most affected &c.
 bring on D^r M^r H^r &c. &c.

5th The Blood is renewed every two or three months
 inasmuch that none of its former parts remain.
 now as this is the ~~case~~ case why should it not
 a second time be subject to contagious Diseases?
 — we know of no well attested Facts of Persons being
 seized wth contagious Diseases twice especially if
 they had ^{from} ~~been~~ to a pretty high Degree.

6th Even supposing a Ferment did act upon $\frac{1}{2}$
 Blood so as dissolve it, yet this would not account

2 6. ~~Putrid~~ have been supposed to ~~be~~
indicate 3 ~~Succession of Putrefaction~~
(a) Nor does a dissolved ^{state} of the blood by any
means support a ~~view~~ for a Permutation
or Putrefaction preceding, as we sometimes see
it to be plain in Febrile Diseases such as
the Plurisy & Pneumony in ^{wh} no one
can suppose any thing like a Germ introduced
into the blood. see Lixivum &c
Neither does a dissolved state & great Prostration
of strength suppose Putrefaction. Both these
take place in a highest degree in a ² Purory &c
we are sure this is no Putrid Disease. Lind 262

For the Phenomena we see attending this Disease,
For we often find a discoloured state of the blood, & some-
times from putrid Causes, & yet no Fever attends, as
in Syphilis & Hysteria Patients, & in some Salivations.
See Sydenham's Obs. on 4th Plu. w. dist. of blood. (a)
7. In Order to support this Doctrine of Fermentation
we are told that the blood of Persons in hot Climates
is much warmer than the blood of Persons in cold
Climates which disposes it more readily to Fermen-
tation, and hence putrid Ferments act more ^{easily} ~~readily~~
upon it. But this supposition is entirely without
Foundation. The blood of every Person in a healthy
State retains the same uniform Temperature in all
Countries even in those Cases where the Heat of $\frac{1}{2}$ Atmos-
phere is 20. or 30. Above the Ordinary Heat of $\frac{1}{2}$ body.
— Those who place the Cause of Animal Heat in
certain oscillatory motions of the nervous. Others tell
us that it is incapable of accumulating any further

(a) See this Observation more fully explained by Mr.
Gleair in D. Ruston's Thesis. p. 36. —

(b) From all this I^w? infer that Nothing
analogous to Putrefaction takes place in the
Fluids of the Body in this Disease.

Iⁿ: Much has been said of y^e small - fat
breath - spots &c. but these are doubtful.
arise from false Theory See Sauvage Vol: II &c
besides we find y^e all in y^e lungs: is no putrid
Disease. — bring in together: see of p: the new.

Heat after the external Heat of the ~~body~~ Atmosphere
 becomes equal to that of the Body. I endeavour
 to support this Opinion by the Analogy of Pulphur
^{ch} which loses its power of retaining the Electric matter
 the moment it is reduced to a fluid state. But
 the data on which this supposition is founded are
 by no means to be granted. I think a more
 simple solution of this Fact may be given by
 having Recourse to the Cold which is generated by
 Evaporation. ^{1st} the more intense the Heat the greater
 Cold is generated, as the Perspiration will always be
 proportioned to the Heat. May not this be the
 Reason why Peppers, & those Workmen who sweat
 most freely, generally feel the Heat of Summer least?

After having raised these Objections to
 the Theory of ~~Spontaneous~~ Fermentation it
 will be expected that I should assign some other

proximate Cause. I wish I was able to do so. But such is the present state of our Knowledge in Physics that I despair of offering any thing complete upon this Head. But ~~encouraged by that Spirit of free~~ Inquiry, and relying upon that Candor w^{ch} we have hitherto so much distinguished this Society I shall wth Diffidence presume to offer my Conjectures upon this Subject. I w^{ill} shew all Reasonable w^{ch} is a Diffidence when we are wth Inquiry of the Cause of the

1. Is the contagion which produces putrid Fevers of
One kind which operates differently in different sea-
sons, and different Constitutions? - or are there so many different species of it, ^{on} - if we attend to
the most common occasional Cause of these Fevers
viz. putrid ~~fevers~~ ^{exhalations,} we shall be inclined to the first
Opinion. But when we reflect ^{on} these Conta-
gious act uniformly on all Constitutions which
they affect, & in all Seasons of the Year we are led
to believe the last Opinion, especially when we

(6) See Dr Gerubius Path⁴ page 251.

“secundum mea Experimenta me convincere de
vera Putredine, etiam mundum Alkalina in vivente
Corpore Animali. in tot morbis putredis etiam con-
clamatis dum sanguis venâ tuâ eductus aut Ali:
unde affluens, examinatus, nunquam ne in pspicuis
quidam variolis Putredinis ^{signa} vel minima mihi dedit.

.. Il seroit sans doute bien singulier ^{De Haen vol. 1. page 172}
que des Malades auxquels on a observé les marques
les plus complètes de cette pretendue Pourriture, ne
non seulement en échapper mais encore guérir

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add to this that Persons who have had one of
these Contagious Diseases are not exempted from the
Others. 66,

2nd Is it not more probable that the Contagion
affects the Solids primarily rather than the Fluids?
— and do not 1st the Fever, 2nd the Debility w^{ch} attends
it, & 3rd the Impossibility of the Patients being seized
a second time wth it favour this supposition?

3rd may not the disordered State of the blood arise entirely
from Debility in the Solids, especially as we always
find it proportioned to this Debility? It may not y.
Hæmorrhages which sometimes attend ~~these~~ ^{these} ~~the~~ ^{the}
be rather the Consequence of a preternatural
Relaxation of the Solids, than of a ^{fætid} ~~acrimonious~~ induced
in the blood? — 101

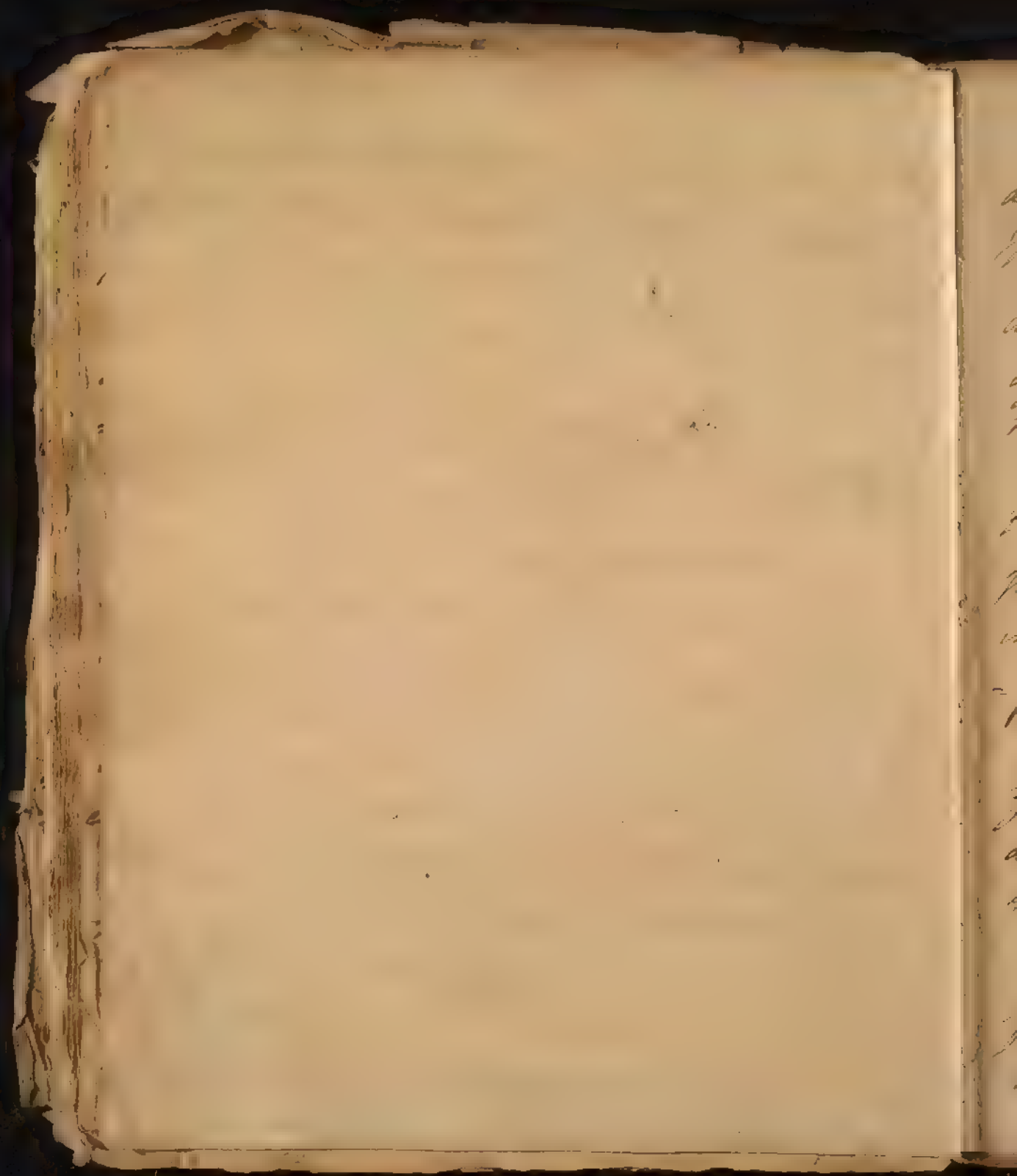
4th It has long been a Problem in Physic why
Persons are subject to Contagious Diseases like
Once in their Lives. This Enquiry altho a matter

peu de tems après de la fente la plus parfaite.
Combien de gens d'ailleurs ont l'haleine si
puante qu'on n'ose les Approcher, & d'autres dont
les sueurs, & la Transpiration ont une Peste diti qui
a de la peine à supporter, & qui ne laissent pour-
tant pas de jouir de la meilleure fente? Osera-
t-on dire dans cette Circonstance que leur sang
est corrompu? - Combien de Substances ne
connoit-on pas parmi les végétales, les Animales
& les Minérales, qui exhalent de leur Nature une
Odeur des plus désagréable? - Pourquoi les Liqueurs
vivantes animales ne pourront-elles pas prendre
ce Caractère très indépendant de la Putrification,
dont on sçait que les Effets sont la Destruction
totale du Miste sans Retour? -" Licuten, p: 21

of the utmost consequence has always been checked
 by resolving the Fact ultimately into the will of
 the Creator. But this mistaken veneration has done
 no less injury to the Progress of Science in every Age,
 than it has detracted from the Honour of ^{the} Author
 of Nature. ^{in philosophical inquiries we ought to} the more minutely we push our inquiries
 follow the Rule of the Dragon: ^{see Deus interpres} the more we penetrate
 into the works of Nature, the more evident traces
 we find of the wisdom of the Deity, & this wisdom is
 displayed no less in Efficient than in final causes.

I hope therefore I shall be excused in attempting a
 Solution of this Question.

The Force of Habit is well known in our System.
 - all the Organs of Sense are liable to sensations from
 Impressions communicated to them by external Bodies.
 These sensations are more or less acute as ^{the} Impressions
 have been more or less continued. a man who has
 long been accustomed to study in a Place which



adjoins a Smith's Shop or the Street is deaf to the noise of the Hammer or Chariots which at first disturbed him, but hears at Once the softest notes of music, or even a whisper in an adjoining Room.

a delicate Lady who has long been in a Habit of taking Snuff in large Quantities without feeling perhaps the least Irritation upon her Nose is thrown into convulsive Fits by the smell of Much-Amber-grease or even a Rose.

a Person who has long been used to chew Tobacco feels none of those sensations excited on his Tongue he did the first day he took it in his Mouth, but if any thing of a different nature with the least Degree of Acrimony is applied to his Tongue, he immediately feels the same sensations excited on it that a Person does who never chewed Tobacco in his Life.



Men whose Office it is to clean such Houses
I have been told never smell any thing Offensive
in the bathrooms inas much they are perpetually ex-
posed to, & yet sneeze most violently when they take a
Pinch of snuff. Instances of this nature might
be multiplied without number.

We before aimed to prove that Contagion was
nothing but a Stimulus Applied to the nervous System
which induced an increased action of the vessels. If
this is the case may not each contagion leave some
state of Insensibility upon the nerves, ⁱⁿ w: we find
the several Impression Rhinoid leave upon each
of the Organs of Sight — Is not this more
rational than to suppose that Contagions purify
the Blood, & expel something from it w: we broth
into ^{the} world w: no which is absolutely necessary to our
future Health? — I know it will be Objected

as I grant indeed that if the Impressions we
before spoke of are intermitted for any con-
siderable time they act as strongly as when
when applied again to the body. This may
easily be accounted for, nor does it in $\frac{1}{2}$ least
affect the Force of these Analogies. for we
must remember that they are applied only
to one of the Organs of Sense, & are never so
violent as to induce any Commotions in the
System whereas the Stimulus of our touch is
so violent as to affect the whole System wth:

here that the Venereal Disease & Itch are received
as often as we are exposed to the occasional causes of
them. To this I would answer that those Diseases
Appear to be less connected wth the nervous system, &
this I take to be the reason why they ~~are~~
never attended wth any fever except when it arises
from topical inflammation. The infectious matter
is moreover in a fixed state, & hence exerts a more
partial stimulus. ~~But upon this Theory only can~~
~~we see the true Reason of the~~ ~~Itch must be when~~
wound around the ~~the~~ Against Contagious
Diseases by exciting ^{it must be} a stimulus on the nerves, &
thereby rendering them less sensible to y^e stimulus of
Contagion. Dr Sydenham tells us that y^e Labour-
ing poor were the Only people who escaped y^e Plague
when it raged in London, & few who have been
sant wth Contagious Diseases but what have seen

an Impression so strong as to leave the Nerves
callous if I may be allowed the Expression
to all future Impressions of a like nature.

them often prevented by Precautions of a like nature. it is worth observing here that ^estimulating substances which are applied to the nose or mouth are only efficacious ~~while~~ they continue to exert their stimulus. for it is no less a Law in Impression ⁱⁿ Perception, that but One can be made upon a sense at One. it would be easy to show of how great application this Law is in Physic.

5.th Another Question here occurs, & that is how is it that One part of the body should be so uniformly affected with the same contagion? - I think a probable answer may be offered to this. we have before presumed that Contagions are in their natures specifically different. it is a well known fact that there ^{are} specific Stimuli in medicine. the Operation of Mercury can be no ways explained but by supposing the Salivary Glands to be specifically

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affected by it. Unless we admit this Doctrine I know
 not how we shall explain the Reason why a few
 Drops of the Antimonial wine should excite such
 a sickness in the Stomach, & yet excite no sensations
 on the Tongue, or even on the Eye itself, or why a
 large Quantity of Salt may be taken into the
 Stomach without producing any sickness, & yet
 a few Grains of it we know excite the most uneasy
 or acute sensations when ^{applied} to the Tongue or
 dropped into the Eye. Dr. Cullen has lately thrown
 out Hints which confirm this Doctrine beyond a
 Doubt in the very ingenious manner in which he
 has diversified the Sense of Touch. Now when
 we admit these Truths we may easily comprehend
 the Reason why the same parts of the Body are
 so uniformly affected by the same Contagion such
 as the Skin ⁱⁿ, the small pox - the Lungs ⁱⁿ the

[illegible]

breasles & the Liver in the bilious Fever.

6th It is now universally allowed that Fevers more especially those of the intermitting kind are owing to ~~various~~ Affections of the nerves. the notions of morbid Matter have been justly rejected from our Theories of them, & the sweat & sediment in 7th urine are easily accounted for upon Principles far more simple than the Expulsion of acid Matter which fed the Disease. now if we can produce any instances of the bilious Fever resembling Intermitting Fevers it will afford a presumptive Argument in Favour of its being in like manner a primary Affection of the nerves. an ingenious Member of the Society informed me that he had seen a Patient in a bilious Fever who had a regular Discharge of Bile every Day for several Weeks from the Hours of 12 till 2 in the Afternoon. a time in

8th a very late Question arises here & that
is, if we deny Putrefaction's taking place in
the fluids in w^h manner shall we an^{sw}er for
the propagation of the Disease? ~~every way~~
to this I answer: I would by no means re-
ject an Assimilation taking place in the
Body, but at the same time I would this we
must admit, nor is it any way repugnant to
the doctrine we have ^{endeav^r} to establish espe-
cially when we extend our Ideas of Assimilation.
- many things we see in Nature from established
Laws w^h we cannot explain produce things w^h have
no Resemblance to themselves. Thus the Juice of Trees
is ~~from~~ ^{from} simple Elem^{ts}: Water, & the Juices of Trees
of a secreted Fluid of a Human Body is capable
of being converted into ^{any} Juice of a Tree & certain
Fluids in the Body are capable of being ^{changed} ~~converted~~
to into a matter by the secretory organs of the

which we know all ~~men~~ have their Quickenings & in which Persons in perfect Health have an evident quickness of Pulse. This hard to tell from whence this rises. perhaps it may depend upon the Revolution of the heavenly Bodies the Influence of ^{wh} over our System more especially in inducing ~~h~~ radical Habits is too evident to be doubted.

7th It is a Law in our System that all Stimuli excite Inflammation when applied to the Body, and that this Inflammation is always proportioned to the greater or less sensibility of the part Affected. - The Tendency of all Inflammations we know to be to Gangrene or Suppuration. If these are always lost or sooner or later according to the violence of the stimulus applied. Do not all Contagions therefore act as Stimuli on the parts they affect? & do not the Gangrenes or Suppurations which happen in all parts of the Body evidently show that an infla-
 mation

not of least Resemblance to any of the common
parts of the Blood. in the same manner we
may conceive of an Assimilation going forward in
the Body w^{ch} is by no means of ^{the} putrefactive kind.
- the Measles is no less contagious: y^e Bil: Fever, &c
yet no one will pretend to say there is Putrefaction attending.
(as Nosologia vol: II. page. 363.

Bill: likewise found y^e Blood w^{ch} was
Inf. & put.

Pringle Red in the first stage of y^e Jail or
Morb^{id} Fever w^{ch} is highly putrid & yet found
the Blood very ~~thick~~ it attacks wth all
in ~~the~~ ^{the} ~~stage~~ ^{page} 299. & likewise
upon Dissection often found Abscesses in
the brain w^{ch} had wth its ventricles filled wth
ichorous
pusulent matter. page 311 See 34 y^e Jail Fever 1752
inflam^{ed}.

(b) Some y^e Plague itself shows greater marks of
Infl^{am} than this. from Dissections of Bodies y^e
died wth it at Marseilles some of y^e Viscera were
always found inflamed or mortified.

Tracté de la Peste.
part I

has preceded? - I am not singular in this Opin-
 ion. Sauvage places the Plague itself among
 the Inflammatory Diseases. his words are "Morbuse est
 Inflammatorius; quod indicant Ardor, Sitis, Rubedo" &c.
 Dr Sydenham we find treated it as such, and never failed
 to order Bleeding in its first stages. (b). 8th See page 14

After what has been said, it would trop ap-
 propriate much upon the ordinary Bounds of a Paper to dwell
 upon the Ratio Symptomatum. if the proximate
 Cause we have assigned is admitted it will be no dif-
 ficult matter to account for most of the Symptoms
 which happen in this Fever.

I have nothing new of any consequence to offer
 upon the Peculiarities more than what our learned
 Professor Dr Gregory delivers so fully in his Lectures.
 I would only add two Observations under this
 Head which are deduced entirely from my own

8th Nothing now remains but to say a
few things concerning the nature of the
Contagion or Miasmata ^{which} produce this Dis-
-ease, but as this Arg^t has no immediate Con-
-nection wth our present subject we shall say
but a few words concerning it. From ^{what} has
been said it appears ~~that~~ this Disease can
never be produced wthout ^{the} concurrence of some
highly acrid irritating Matter introduced into
the Constitution. This Matter may be ^{originally} ~~be~~
Product of ^{an} Animal or Vegetable ^{preparation} ~~preparation~~.
we ~~may~~ ^{have} Instances ev^d of Malignant Disease
being produced from these Causes. See Dr Rodger's
Diss^{er} on C^{on}h page 41. in w^h manner these
Substances are diversified so as to produce diff^t
Diseases is hard to tell. perhaps it may

Charges indeed
depend upon different states of Putrefaction
in the contagious matter w: may be derived
from the different circumstances of heat and
moisture operating upon them. in this state
they are called Miasmata. After they have produced
+ from page 26. we often see the Disease propa-
gated in its first stages long before we can
suppose any thing like Putref: to take place,
or even before any of those Symptoms occur
w: have been supposed to indicate the presence
of Putref: in the blood, but w: we have shown
may depend upon other causes, & are often connected
w: Diseases which do not arise from Contagion,
but are of the true inf: nature.

After all I grant there is a Pen?
fanny increased Rectification & want of
Food but this may happen in early
Fever, & does not arise from a putrid w:
movement.

the propriety of this Remedy. no limited Quantity of
 blood can be fixed here. it must Always depend
 upon the Age - Temperament - state of the Pulse -
 & his life of the Patient. Hillary orders it for 157.

2nd Laxatives. These are likewise highly useful.
 when the bowels are constipated, but they should
 be of the most gentle nature. the Sol. Glauberis seems
 to answer best for these purposes. I have seen
 ʒss of it given every four hours for several Days
 with great Advantage. When taken in these small
 Quantities it lies longer on the Stomach, is more
 cooling & less apt to purge the Patient immoderately.

Vomits have been given by some & much re-
 commended by Others, but I think wth no Advantage.

the Indication wth they were given is no less errone-
 ous than the Practice has proved hurtful. the sick-
 ness at Stomach depends entirely upon an increased

chiefly have aimed at to prove y^e Disease
is seated orig^l in y^e Nervous System, & y^e the
Furrows are affected only in consequence of this, &
this Bartholin's disease? in a Letter of

this kind at Copenhagen from a Member
of Dissections inasmuch y^e he inquired
it was y^e Seat of it. Histor: Anat: Rar

Cent. 11 hist 56.
see Hill: on the imp^t of vomits p. 159. he
always in Dissections found y^e stomach inf?

Indication often must turn chiefly but
removing the Affections of y^e Nervous
System.

B: If vomits are given they sh^d be of y^e most
gentle nature. a little $\frac{1}{2}$ diff^r in water.

(21)
 Irritability & Inflammation of this ~~part~~ tissue, &
 not upon any acid or putrid fordes lodged in it.
 Altho' we evacuate the stomach of the bile &c. ^{ch} w:
 it contains by giving a vomit yet we only ~~cause~~ ^{cause} ~~cause~~ ^{cause}
 action for a greater accumulation of it by increasing
 the stimulus which first derived it there. It has
 been found in some cases where the Patient has com-
 plained of the most violent sickness at stomach, &
 has vomited up every thing he took, that upon
 giving a vomit ~~has~~ no ~~effect~~ or any thing like
 it has been known up which sufficiently witness
 that it depends upon Inflammation. To alleviate
 the nausea & vomiting I know of nothing better
 than Riverius' Mixture, & Plasters of Thiarsa
 applied to the external Region of the Stomach, 21
 3.^d Cool Regimen - consisting in 1.st ^{ch} Cool Air. 2.nd ^{no} Cold
 Drinks & 3.^d Ripe Fruits.

Ind: of Cure sh: always be founded upon
1st proximate cause. ^{it appears now} we have ^{acted to show}
2nd Contagious matter ^{has a} ^{specific} ^{operating}
^{upon} ^{the} ^{nerve} ^{system}
~~as a~~ ^{as a} ^{stimulus} ^{upon} ^{the} ^{nerve} ^{system}
upon ^{the} ^{arterial} ^{system} & 2nd as a Sedative
upon ^{the} ^{nerve} ^{system}. to this we might add
its Effects upon ^{the} ^{solids} where it acts in
such a manner as to produce an Affection
in some part of them, the Ind: of Cure accord: to
the plan we have laid down must be

- 1st to abate ^{the} ^{increased} ^{action} of ^{the} ^{arteries}
- 2nd to Obviate Debility
- as see Dr Brocklesby &c

Cool Air. There is not a greater Error in Modern Practice than keeping Patients too hot in Fever more especially in those we have been describing. Future Ages will be as much surprised at our Conduct in this Respect as we are at the Folly & Madness of Asclepiades who refused his Patients Drinks of all kinds in the first stages of Fever. Both Practices proceed from equally false Theories. the sagacious Dr Sydenham first endeavored to reform this Practice. we find him dwelling upon it thro' all his writings. The amazing Success which has attended the new Mode of inoculation seems to be owing to nothing else than the free use of the cool Regimen; & from many Circumstances we have Reason to think the small, hot & bilious Fever more nearly related to each Other than has generally been supposed. I would therefore Order the windows of my Patients Chamber to be kept constantly Open, I would contrive to have artificial

128
as it is ample Conclavi tenendus, quo multum
et suumorem trahere possit; neque multis
testimoniis stranguendus, sed admodum levibus tan-
tum melandus est. Celsus Lib. III Cap. 7 page 134

129 In Shakespear's King John. 2^d must people
might they ~~had~~ opt the language of ~~the~~ King John in
the Play when he lay from the 1st to the 10th;
not from a nother cause
b/ See Dr. Mich. Rosa.

Draughts of Air introduced into it. They should like-
 wise set up as much as possible, & be covered w:
 getting out the lightest Bed Coats. I would besides
 this Order the Floor to be sprinkled with water or
 vinegar w:^{ch} by evaporating would induce a grateful
 coolness in the Room, the Heat of which should
 always be rather below than above 60: .

2.nd Cold Drinks. Nothing can be more cool, or ill-
 judged than to deprive the poor miserable Patients
 of that w:^{ch} they cry out so much for. How many
 Instances have we of the most remarkable Cures
 being performed by a Draught of cold water! Why
 then do we Oppose a Practice w:^{ch} Nature indicates
 & Experience justifies? Instead of giving my Patients
 warm Drinks I would strictly forbid them to take
 any thing but what was cool. They should all
 be circulated with the spirit of Criticism.

3.
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as just the word putrid here in Compliance
wth the common Language of Physicians.

(16.) Exr: wth ~~Serpens~~ Serpentina
Flor: Cam de
It appears from Sir John Pringle's Exp: that
Cam: Flon & Exr were equally powerful in
restoring Relief: out of the body. if ^{the Patient's} ~~the Patient's~~ condition
depended upon its Antiseptic Qualities what
Advantage it such great advantages above them

first introduced the use of the Bath in putrid ^{Purulent} Disorders
 of all kinds, & in this was followed by D^r Morton
 & many Others of a later Date, such as Huxham
Cruikshank & D^r Haen. see vol. i. of the last mentioned
 Author's works page 265. Each of these Authors
 recommend it in the highest State of ^{the} Disease,
 & do not confine its use to Remissions w^{ch} seldom
 or never happen in these Disorders where its use is
 most indicated. The Bath in these Cases is gene-
 rally given as an Antiseptic. This notion was
 introduced first from seeing its Effects in preserving
 Bodies from Putrefaction. but I deny its having
 any analogous Operation on the human Body.
 It would therefore reject the term entirely from Physic
 as highly unphilosophical. There are few of us
 who have seen approaching Gangrenes
 in a remote part of the Body at once checked by

Other two mediums in these kind of Funs?
Besides

disordered blood &
~~Putrefaction~~ ^{altered} ~~caused~~ their action. This was
long supposed to be owing to a Putrefaction
of the blood, but can now be explained
more rationally by has^d. Recourse to the
Potencia induced upon ² nerves. 8

Vomits

(21) Blisters doubtful! Hillary rejects
them: 170 - perhaps from Henry. System
in so highly irritable a state that the least
stimulus excites an ^{ex}cessive tendency to Gangrene. See
and only fulgent. Cullen says useful.
recommended ^{or} they may be soon
cold eliminated - Pringle's Salt I make
no doubt of Use. never saw ²⁷ 4:

These Cases is generally given in too small Quantities to do Service.

3.^d Nourishing Diet. to this Head belong Panada tooth Gellies &c ^{ch} w. are too well known to be dwelled upon here.

4.th Exercise. particularly riding in a Coach as the Patient's weakness will seldom admit of his using Exercise of a more violent nature. (a)

B. Roche

This have I finished wth I propose in this
 + see page 37.
 Essay. If I have advanced any thing in it y^e
 will find to know any right notionth
~~but~~ ~~undisputed~~, on lead to a more suc-
 cessful Practice in treating it I shall think
 myself very happy y^e ~~Providence~~ ~~but~~ ~~that~~ ~~it~~
~~in my power~~ ~~there only~~ ~~to~~ ~~be~~ ~~amply~~

(a) All I intend by it is, to inform the world
that I have had the honor of being your
Pupil, & that I can boast of but ~~the little~~
~~one~~ ^{the} ~~few~~ Others who have had ^{such} like
~~experience~~, most of fellow-pupils carry with
them more disting. marks of being far?
^{the} ~~the~~ ^{the} Instructions, yet none of ^{them} ~~them~~ in
gratitude & esteem of de

— B. Plafh
B. P.

repaid for my trouble. ^{But I have} if not ~~it~~
~~can be~~ ^{shall} take Refuge under
 the Words of the Poet a Magnis satet
 Volucribus.

To Mr. Collier Esq.
 I do not ~~desire~~ ^{desire} by ~~my~~ ^{my} name
 to this ~~my~~ ^{my} first Edition ~~to raise~~
~~my~~ ^{my} Reputation by those ~~ulsome~~ ^{ulsome} Pan-
 syriches ^{as} ~~as~~ usually ~~con~~ ^{con} tribute to ~~Adi~~
 Gains, ~~too~~ ^{too} ~~of~~ ^{of} much less so I do intend
 it as an acknowledgement of ^{the} Obligation
^{as} I owe to you. The first is too well known
 to receive any additional ~~Repⁿ~~ ^{the least} from any thing
 I can say, and the last one of too many -
 value to be ~~repaid~~ ^{expressed} by ~~any~~ ^{any} of Language.
 - ⁽ⁱⁿ⁾ May you long continue to adorn that

Gift of Science owes so much of its
present Rep.ⁿ to your Genius & Industry!
~~and may you have the growing pleasure~~
~~and may you have the growing pleasure~~
~~and may you have the growing pleasure~~
of seeing the many Pupils who shall
be ~~enjoying~~ ^{enjoying} the joint efforts
of ~~your~~ ^{your} ~~and~~ ^{and} may you every day
enjoy more & more of the sublime Plea:
which arise from
- success in communicating that knowledge
to all around you.

There are two ~~bad~~ Remedies which do
not properly come under any of the ~~two~~
heads we have been speaking off viz Blisters
& Blisters. ~~now~~ the first are for the
throat part given very profusely in this
Disease. Dr G. is the only Author who speaks
of them. Now, as they may be ^{useful} safe in these
Cincoes where the bil. Fever prevails only
in a slight Degree, I shall not pretend to say,
but in very warm Cincoes where it rages w:
more Violence they seldom fail of doing a great
deal of Mischief. we are taught from Dissections
of Bodies y^e have died of this Disease y^e not
only the Gall. Bladder is found swelled &
inflamed but also the Duodenum & very often

The Stomach itself. The Effects of vomiting
therefore would in this Case have the most
dreadful consequences. Altho we estimate
it as p. 29. ^{all} It is a wrong notion to
suppose ^{all} affections of the Stomach depend
upon Lordes lodged in it. most of its Diseases
are of consequence of Inflⁿ or Abscess I would
therefore advise ag^t the use of Vomits exactly
in the most mild states of these Diseases. & when
in these Cases I would attribute this success
more to their hum^r: a Detemⁿ: towards the
Skin & thereby obviating the febrile Spasm
rather than to their evacuating Lordes from
the Stomach. A more via. to alleviate the
& vom^s: there is nothing better yⁿ Purgatives

I Partur of Tricena aff: to stomach.
— the use of Blisters in this Disease
is no less ambiguous: $\frac{2}{y}$. $\frac{2}{y}$ ~~use~~ Exhalation of
Vomits. ~~in the first stages of the disease~~
~~it is difficult to know how far they might prove of~~
service in its first stages I shall not pretend
to say as I have never seen them tried in the
early period of the disease. Dr Lind relates
some remarkable Instances of their suc-
cessfulness in the Prog: of a yellow fever
which was brought from America during
the late war to Great Britain but I am apt to
think the disease was so changed from what
was originally that it w: not do to apply this
Practice universally to all Variations in the

second stage of the disease we have marked
but they are evidently hurtful, not by
deflowing the blood, & thereby increasing its
putrid diathesis, ^{as was formerly supposed.} but by destroying
the action of the vessels, & thereby endangering
gangrenes in the places where they are
applied. Sir John Pingle ~~has~~ mentioned
a case of a soldier ⁱⁿ who confirmed this disease
notwithstanding, happily cured by a plentiful dose
of the bark. It is much to be wished that
the proper use of History was fully ascertained
in this as well as in other malignant Fevers.

- we have too Facts in Medicine to speak
of any degree of confidence either in ^{or} reason or

of them. for my part I must acknowledge
my want of Experience & Observation upon
this Head. —

Thus have I finished wth I proposed in
this Essay. see p: 37

Acids - These in like manner have
been given w. a view of Obviating Putrefaction
& coagulating the Blood. But their ^{primary} ~~primary~~ ^{operation}
tion is entirely confined to the Stomach,
from where their Effects are extended to
every part of the ^{Body} ~~system~~. They serve
to brace up the system, & serve excellent
altering mediums. the vitriolic Acid is
be prepared to y^d other Min^{erals} kinds, as
being less heating, & more agreeable to
the Stomach. -

I will not however say but what
both Diseases may have been originally
the same. Their Differences may depend ^{entirely} upon
the Influence of Climate upon ^{us} it. Dr. Huch
seems to be of this Opinion. The Lamb as
well as the Bilious Fever in time becomes
contagious.

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as

I will not however venture to say but that
they have been big? (I am diseased)
I am only convinced by the difference of climate ^{at} ~~the~~
~~the same place~~ ~~the same place~~ ~~the same place~~ ~~the same place~~ ~~the same place~~
that much more in time become contagious, & on
many cases facts on many symptoms of y^e M^odis
diseases of the continent.

W^m M^odis



